



Introduction to the Emergency Medicine Team Approach for Research & Healthcare Delivery: A Summer Immersion Experience for Medical Students

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BACKGROUND

- *Team work* is critical in the emergency department (ED) for providing patient care understanding and early exposure to *interdisciplinary collaboration* is essential for future physicians
- Generally, there is a lack of experiences provided to medical students to engage in team-based medicine
- Therefore, we sought to develop a summer immersion experience for rising MS2 students

GOAL

- Facilitate exposure to *team-based medicine* in the emergency department
- Exposure to various members of the emergency healthcare team
- Gain experience in the fast-paced environment of the ED
- Provide experience with *emergency care research* and tangible product (poster; manuscript draft) at end of 10-week program

METHODS

- Designed a highly-competitive summer program – combines *research + clinical experience*
- Students participate in prospective clinical and retrospective studies with faculty and resident mentors
- Students learn about roles of the *physician* clinical team + roles of *nursing, pharmacists*, respiratory therapy, techs in clinical environment
- Gain exposure to *statisticians*, ethicists, *foundational scientists* through one-on-one interactions and weekly didactic learning sessions

Clinical Experiences in Emergency Medicine

ED Interdisciplinary Team Member Experiences

Physicians (Attendings, Fellows, Residents)

Diagnoses, Treatment Plans, ED Patient Flow, Procedures

Nursing

Blood Draws, Medication Administration, Family & Patient Interactions

Pharmacy

Medication Selection, Dosing, Antibiotic Stewardship, Prophylaxis

Respiratory Therapy

Ventilator Management, Nebulized Medications, Spirometry

Research / Didactic Experiences

Involvement in Prospective & Retrospective Research Studies

Study Design

Asking a Research Question

Consenting Patients

Database Entry & Management

Literature Review

EMR Chart Review

Statistical Analyses

Research Methodology

Non-ED-Based Experiences

EMS Ride-Along/Pre-Hospital Medicine

Patient Transports, Resuscitations, Emergency Procedures, ACLS

Simulation Lab

Procedure Skills

(Central Lines, Chest Tube, Intubation, Needle Thoracostomy)

Didactic Curriculum

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| • Emergency Medicine & Research | • Journal Club & Review |
| • IRB / Human Subjects | • Death & Dying in ED |
| • Strategies for Giving a Scientific Talk | • Research Ethics Cases |
| • Various EM Fellowships | • EHR Training |
| • Grants & Grant Writing | |

FINDINGS

- Total of 22 students participated in 10-week Summer Program during 2017-2018-2019
- All students completed the clinical experience and all students presented their research as a poster at program completion
- 7 students have presented their projects at national conferences
- After completion of program, 88% of students expressed interest in EM residency

CONCLUSIONS

- Provided interdisciplinary team approach in EM
- Improved understanding of healthcare delivery, EM as a career, and clinical research at an academic health center
- First cohort follow-up – April 2020 after Residency Match

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